

Chapter 23

Brazil: Poverty Under Inflation

Sonia Rocha

Introduction

The 1980s in Brazil clearly represented a break from the relatively successful path the country had followed since the 1930s, but especially after the Second World War, to attain the status of a developed country. From 1968 to 1980, per capita GNP grew at an average yearly rate of 6.25 per cent, as a result of a fast rate of investment and modernization. Although the benefits of income growth were unevenly distributed, people were better off at all income levels, which guaranteed social peace. The general awareness in the academic milieu that issues concerning social inequality and poverty were not automatically solved through economic growth (Adelman 1975) did not affect the conduct of economic policy in Brazil. It was taken for granted that growing inequality was a necessary result of productive bottlenecks, especially the scarcity of qualified manpower, and that trickle down effects would soon begin to operate. As a consequence, economic policy was tacitly geared to the attainment of high growth rates as an objective in itself.

High liquidity in international financial markets fuelled domestic investment in the 1970s. As a result, Brazil entered the 1980s as highly dependent on flows of foreign capital and was badly hit by the money shortages and rise in interest rates at the beginning of the decade. The debt crisis and the process of adjustment that followed led to successive short-term economic cycles all through the decade, which resulted in a decline in investment and terrible results in terms of income growth: from 1980 to 1994 GDP grew at a dismal 1.07 per cent annual average. Per capita results were even more adverse, with per capita GDP recording a reduction in the same period. That the outcome was not worse was the result of a big fall in the rate of population growth.

Macroeconomic policy, although highly successful on the foreign front, seemed unable to deal with the monetary and fiscal imbalances that plagued the Brazilian economy. High rates of inflation – the consumer price index reached 1,863.6 per cent in 1989 – penalized individuals on lower incomes and increased income inequality from already intolerable levels (Bonelli and Ramos 1993).

The combination of stagnant incomes and growing inequality placed Brazilian society under great pressure. It caused a sudden break in the pattern of rapid growth and high social mobility that Brazilian society had become used to. Social unrest and urban decay in areas affected by the long period of low and unstable economic growth brought the poverty theme to the centre of national attention. Questions such as “What is the nature of poverty in Brazil?” “How many are poor?” “What are the characteristics of the poor?” “What are the implications of these characteristics for fighting poverty?” became central in a debate that mobilized not only politicians and academics, but the whole society.

One way to determine who is poor in a modern society is to put a money value on the goods and services needed to function in that society. This “poverty line” is the parameter that can be used to distinguish poor from non-poor on the basis of their incomes. In Brazil this income-related approach is the one most commonly used in poverty studies, although many different techniques have been applied to establish poverty lines.

The focus here is on absolute poverty alone, because relative poverty – that is, income inequality – encompasses a specific and rich set of studies. Furthermore, since a large proportion of the Brazilian population still has insufficient income to guarantee access to basic necessities, the priority in social policy is to deal with absolute poverty. Eventually, improving the lot of the absolute poor might also reduce inequality.

Only studies referring explicitly to the use of a poverty line are considered here. This excludes those examining the relationship between low income and certain personal or family characteristics. This is the case, for instance, with studies of the impact of changes in the minimum wage (Ramos and Reis 1994), which is of especial interest because of the widespread use of the minimum wage as the poverty line. Because 27.1 per cent of workers received wages lower than the minimum wage in 1990, wages policy and the growing informal labour market are relevant concerns when considering absolute poverty. Also, since labour income accounts for 84 per cent of family income, the way individuals participate in the labour market is closely related to

the incidence of poverty. Studies on the relationship between educational level and income (Lam 1989) demonstrate the high returns of schooling when future income flows are considered and the need for better access to education as a way to reduce poverty. Studies centred on known characteristics of the poor, such as belonging to female-headed households (Barros et al. 1993a), living in the rural Northeast (Jatobá, 1994), or having small children in the family (Camargo and Barros 1991) highlight the need for social policy mechanisms aimed at specially vulnerable groups.

The following section presents studies that use the minimum wage to define the poverty line. I then deal with poverty studies based on poverty lines derived from observed consumption patterns. The third section presents information on the data used in poverty studies. The concluding section synthesizes the main results on poverty in Brazil and their implications for social policy.

The minimum wage as poverty line

Minimum wages were established in Brazil in 1940 as part of a newly created body of labour legislation. The wages, at first defined for fifty different areas, were supposed to correspond to the cost of acquiring the basic necessities for a worker. In fact the wages were from the onset lower than that and, from then on, price inflation and irregular indexation had the effect of further diminishing their value. It is estimated that in 1980, when the number of regional minimum wages had already been reduced to two, the real value in São Paulo corresponded to 62 per cent of its 1940 value; in Rio de Janeiro, the 1980 minimum wage was 21 per cent above its 1940 value (Sabóia 1985).

Despite the fact that the minimum wage does not necessarily correspond to the minimum living costs of a worker, which also vary according to local determinants, the minimum wage, or a multiple of it, has often been used for establishing poverty lines in Brazil.

Pfefferman and Webb (1983) used a two-minimum-wages-per-family poverty line¹ to identify the poorest group. This value corresponded to around US\$260 per capita annually, which was roughly double the poverty line then currently used by international agencies in assessing poverty in developing countries. They argued that cost of living in Brazil was substantially higher than that usually found in underdeveloped economies and that the worsening of social indicators for families with incomes below this level gave support to their choice.² Using two current

minimum wages per family as a poverty line, 62 per cent of the population were identified as poor in 1972, and only 27 per cent in 1974-5.

These results require an explanation. Although the pace of economic growth was rapid in the early 1970s – GDP grew at an average yearly rate of 10 per cent between 1972 and 1975 – an increase in income was not the only cause of the reduction in the proportion of poor people. In fact, the income data for 1972, from the national family survey (Pesquisa Nacional por Amostra de Domicílios – PNAD), are not compatible with the income data from the national study of family expenditure (Estudo Nacional da Despesa Familiar – ENDEF) relating to 1974-5. Since the ENDEF is a more complex survey, which investigated consumption and expenditure in great detail, its records for income are more complete than the ones from PNAD.

It is obvious that analysis of different years cannot be based on data with different characteristics. Additionally, cross-sectional comparison among regions for any given year is necessarily prejudiced when a single poverty line is used for the country as a whole. However, this has been the most frequently adopted procedure. Pfefferman and Webb, for instance, found that the proportions of poor were 9 per cent metropolitan, 25 per cent urban, and 66 per cent rural in 1974-5, ignoring the fact that the cost of living is generally lowest in rural areas and highest in metropolitan areas. Thus, using a single poverty line implies underestimation of metropolitan poverty or overestimation of rural poverty.

The choice of the income variable has a significant impact on the results. Hoffman (1984) argued that global expenditure is a better proxy for permanent income than declared income, and used this variable from ENDEF in conjunction with a two-minimum-wages-per-family poverty line. Nevertheless, the proportion of poor thus obtained for Brazil in 1974 – 56.2 per cent – is almost double Pfefferman's result using declared income.

Pastore et al. (1983) also used a single national poverty line, but they introduced several improvements in relation to previous studies. They defined the value of the poverty line as equivalent to one-quarter of the minimum wage. Though equally arbitrary, it explicitly took into consideration family size, which is known to be larger among the low-income population. Using demographic census income data, they found the proportion of poor had declined from 43.9 per cent in 1970 to 17.7 per cent in 1980. In absolute terms, the number of poor families would have declined from 7.3 million in 1970 to 4.4 million in 1980. Nevertheless,

because the poverty line relates to current minimum wages and the real minimum wage was not constant in the period,³ there are price biases embodied in the results.

Probably the most important contribution by Pastore et al. (1983) was the use of census data to generate a special set of tabulations to compare various characteristics of the poor and non-poor sub-populations, since previous analyses were generally based on published data. Indicators relating to demography, labour market, education, and housing conditions show the impact of the increase in incomes during the 1970s, which occurred simultaneously with rapid productive change and urbanization. It is noteworthy that, if differentiated poverty lines had been used in the study – higher in urban than in rural areas – instead of a single national parameter, the increased proportion of urban population (56 per cent in 1970 and 67 per cent in 1980) would obviously have resulted, *ceteris paribus*, in a smaller reduction in the proportion of the poor than the one obtained in the study.

Fox (1990) presents a very careful analysis of the evolution of poverty in Brazil, considering explicitly the price problem and other conceptual questions. Although a single and arbitrary per capita poverty line is adopted⁴ – one-quarter of the highest 1980 minimum wage, which translates into an income of roughly US\$200 per year, or about 13 per cent of per capita GDP⁵ – it is expressed in real terms for different years. Results based on the 1970 census naturally differ from the ones obtained by Pastore et al. (1983), who used current minimum wages as the basis for the poverty line (see Table 23.1). Nevertheless, it is surprising that different authors arrive at quite different results for 1980 (Pastore et al. 1984; Fox 1990; Tolosa 1991), because the same methodology and the same database were used. The proportions of poor families directly derived from published census results for 1970 and 1980 are 65.6 per cent and 19.1 per cent respectively.

Both Fox (1990) and Rocha and Tolosa (1993) present a set of poverty indicators based not only on census data but also on PNAD data. In both cases results refer to urban and rural strata in different regions.

Poverty rates in the 1980s (Table 23.2) show extreme variation over time: the rates, both in rural and in urban areas, are very sensitive to short-term cycles, whose ups and downs have characterized the Brazilian economy in the last decade. The proportions of poor in 1981 were affected by an unprecedented drop in real GDP (–4.5 per cent), the first since official national accounting began in 1947. The incidence of poverty worsened as

Table 23.1 The proportion of poor in Brazil for census years using poverty lines based on the minimum wage (%)

Authors	1970	1980	Poverty line definition
Pastore et al. (1983)	43.8	17.7	$\frac{1}{4}$ of current minimum wage
Fox (1990)	54.7 ^a 47.9 ^b	26.2	$\frac{1}{4}$ of the highest 1980 minimum wage
Tolosa (1991)	54.1 ^a	34.8	$\frac{1}{4}$ of the highest 1980 minimum wage
Published census data ^c	65.6	19.1	$\frac{1}{4}$ of the current minimum wage

Sources: IBGE, 1970 Demographic Census, Table 10, p. 226; 1980 Demographic Census, Table 1.13, p. 44.

Notes:

^aGeneral price index (FGV/IGP-DI) used as deflator.

^bImplicit GDP deflator.

^cPercentages refer to families and not to individuals as in the other cases. For 1970, the proportion refer to families below the two-minimum-wages poverty line.

the crisis reached its peak in 1983. In 1985, the effects of the export-led growth that had started the previous year were already visible. The poverty reduction process was maintained in 1986, when the anti-inflation shock (Cruzado Plan), followed by significant real wage increases, led to a consumption boom that fuelled the economy until it was checked by the re-eruption of inflation and new short-term cycles in the late 1980s. The decline of GDP in 1990 (-4.4 per cent) contributed to the absence of per capita gains compared with 1981. Economic performance deteriorated further till 1993, when an upturn began. Unfortunately, PNAD data are not available for years later than 1990, but trends in the 1980s suggest that absolute poverty probably increased up to 1993.

The data presented in Table 23.2 highlight other aspects of the incidence of poverty in Brazil. Poverty is higher in rural areas, but, because of rapid urbanization, the rural poverty share is declining. Also, there are significant differences between regions. Poverty in the Northeast is the highest, both in terms of income, as shown here, and from the social indicators point of view. The Southeast region, where the states of Rio de Janeiro and São Paulo are located, has traditionally had the least adverse poverty indicators. Albuquerque (1994) uses social indicators for the poor sub-population to derive a poverty typology using the poverty line based on one-quarter of the 1980 minimum wage per

capita. Although the poverty incidence moves in the same direction in all areas, the impact of short-term cycles is stronger in the most developed areas, where the poverty incidence is lowest and least "structural" in nature.

Poverty lines derived from food baskets

Obtaining the poverty line from food basket values and Engel's coefficients has always been the "preferred" procedure as far as international literature on poverty is concerned. Its main advantage is having a basis for defining the minimum food basket that guarantees the satisfaction of nutritional requirements. Deriving non-food consumption in a simplified way is often considered an inevitable shortcoming in the absence of any theoretical basis for defining its minimum adequate level and value.

In a comparative study on poverty in Latin America, Altimir (1979) established poverty lines for each country based on a common methodology: the food basket was derived from per capita consumption of food items known to compose the national diet, adjusted to meet nutritional requirements defined by the Food and Agriculture Organization (FAO). For Brazil, this diet was initially valued on the basis of the available average urban prices. Although recognizing the importance of local specificities in prices and in consumption patterns,⁶ Altimir ended up with two poverty lines, one referring to urban areas (US\$197), and the other to rural areas (US\$130). The national poverty line, obtained as a result of the average rural and urban poverty lines weighted by population shares, corresponded to US\$162 in 1970, which was roughly 20 per cent lower than the minimum wage poverty line that was often adopted (see previous section). The most relevant fact about Altimir's study is that, for the first time, different poverty lines were used for sub-areas in the country.⁷ Hence, national results for poverty incidence have a different meaning when compared with those from previous studies. Table 23.3 shows the proportions of poor and hard-core poor, the latter having a per capita family income below the value of the food basket (the indigence line). It is noteworthy that the incidence of poverty in rural areas remains much higher than in urban areas, despite the use of a rural poverty line that is considerably lower. Results for the country as a whole are similar to the ones obtained by Fox (Table 23.1) using a single poverty line (implicit deflator variant).

By then the World Bank, according to its 1979 guidelines, was using a relative poverty concept for poverty assessment and policy: the poverty line was estimated as one-third of national

Table 23.3 The proportion of poor and hard-core poor: Altimir's estimates for 1970 (%)

	Poor	Indigent
Urban	35	15
Rural	73	42
National	49	25

Source: Altimir (1979: 63).

per capita income (in Brazil, one-third of 1979 per capita income represented Cr\$18,396 annually or Cr\$6,745 monthly family income). Considering the specific minimum wages, this represented from 3.2 to 4.1 times the local minimum wage per family.

The arbitrariness and growing confusion that resulted from using different parameters for assessing poverty in Brazil, in international comparisons as well as among sub-areas within the country, motivated the study by Vetter and Hicks (1983) for the World Bank. The Bank needed a parameter to determine to what extent its programmes were correctly targeting the urban poor. Hence, the study was aimed at evaluating the cost of living for the urban poor in different regions, and how an acceptable national poverty line should be established, and at what cutting point. They defined an optimal diet in relation to Rio de Janeiro food preferences and prices, and estimated a set of poverty lines based on the local cost and local Engel's coefficients derived from the ENDEF. Despite using a single food basket, it was found that both food costs and the share of food expenditure in total expenditure differed significantly among regions. Thus the researchers recommended the use of a higher value for the poverty line (four minimum wages per family) in the North, Northeast, and Centre-West, and a lower value (three minimum wages) in the other regions. Although the differences related to urban areas, no recommendation was made concerning urban-rural differentials. Furthermore, no poverty incidence estimates were generated based on these parameters.

Vetter and Hicks' choice was to resort to the ENDEF only for Engel's coefficients, but by then the survey's complete results were already available. Family expenditures – with food consumption as the object of especial emphasis – were published in a very detailed income and regional breakdown. The new data allowed for the application of a wide choice of methodologies for defining poverty lines, relating both to the food basket and other

expenditures. Nevertheless, even the poverty studies that made greatest use of the ENDEF had used the basic "food cost-Engel's coefficient-poverty line" approach, that is, the same as Altimir's, although now based on observed low-income consumption. In this sense, conceptual progress was modest, but empirically the gains were important, because it became possible to define specific poverty lines based on low-income consumption patterns according to a quite detailed regional breakdown (twenty-two sampling areas).

Thus, using the ENDEF data, the World Bank Special Report on Brazil (1995) estimated the cost of three variants of twenty-two regional diets that considered low-income consumer's preferences and met the national average calorie requirement (2,242 kcal/day). For the higher-priced diet, typical of families just meeting the calorie requirement, this monthly per capita cost varied from US\$10.8 in the rural Northeast to US\$29.1 in metropolitan São Paulo. Although these results were presented in terms of an analysis of consumption and nutrition, and were not used to derive poverty lines or to measure poverty incidence in Brazil, it is interesting to relate them to values later used by other authors in order to assess the incidence of poverty in Brazil (see Table 23.4).

Thomas (1982) resorted to the 1979 World Bank Report diets to estimate poverty lines using observed Engel's coefficients. Having a choice among three sets of food baskets, he selected the one embodying exogenous constraints. The more strictly observed diet was rejected because its higher value would necessarily mean a larger proportion of poor than adequate for social policy purposes.

Thomas (1982) and Fava (1984) used practically identical methodologies based on regionalized food costs and Engels coefficients to derive twenty-two poverty lines relating to ENDEF areas of analysis. Nevertheless, their poverty line values differ: Fava's values are generally higher in metropolitan areas, but lower in rural areas.

Some summary poverty incidence results are presented in Table 23.5. Thomas and Fava's poverty rates for the country as a whole are quite different - 29 per cent and 36 per cent, respectively. Although the ranking of sub-areas in Table 23.5 is the same, it is not maintained when the twenty-two areas are considered. Furthermore, for social policy purposes, to have either 16 per cent or 27 per cent of the total number of the poor in metropolitan areas has quite different policy implications. The differences between Thomas's and Fava's parameters and indicators, using essentially the same methodology on the same

Table 23.4 Estimates of minimum monthly per capita food costs and poverty lines based on ENDEF (US\$ and % of minimum wage)

	World Bank (1979)		Thomas (1983)		Fava (1984)					
	Indigence ^a		Indigence Line ^a		Poverty Line					
	US\$	%MW ^b	US\$	%MW ^b	US\$	%MW ^b				
Metropolitan São Paulo	29.1	53	20.6	38	40.7	75	18.2	34	53.0	99
Rural Northeast	10.8	20	10.5	19	16.6	30	9.2	17	13.5	25

Notes:

^aThe indigence line corresponds to the cost of meeting food needs.

^b August 1974 Rio de Janeiro minimum wage (Cr\$376.80).

Table 23.5 Poverty incidence estimates using poverty lines derived from ENDEF data, 1974-5

	Thomas			Fava		
	Poor (per cent)	No. of poor*	Share (per cent)	Poor (per cent)	No. of poor*	Share (per cent)
Metropolitan	17.4	4,403	17	34.2	9,488	27
Urban	22.6	6,944	28	34.4	10,562	31
Rural	39.4	13,978	55	38.6	14,664	42
Total	29.4	25,325	100	36.0	34,713	100

Sources: Thomas (1982: 87); Fava (1984: 105).

Note: Thousands. Absolute numbers must be viewed with caution. Thomas's and Fava's results relate to a total population of 93,408 and 96,425, respectively.

database, highlight the difficulties in making comparisons between different periods using empirical results obtained by different authors.

Comparing income distribution based on expenditure surveys with poverty lines, both derived from ENDEF, has an obvious advantage for poverty studies. One reason is that expenditure data reflect permanent income better than income data. Another reason is that expenditure-based distribution guarantees a better coverage of the income of lower-income groups. As a result, a more reliable approximation of the incidence of poverty is obtained. Hence, from a theoretical point of view, the best poverty estimates are the ones derived entirely from expenditure surveys. Using poverty lines based on observed consumption and income from population census or from the PNAD produces some overestimation of poverty because of the income underestimation bias.

This is why the poverty rate for 1974-5 is not comparable with results obtained using the same poverty lines price-adjusted for other years. Rocha (1988) used Fava's food baskets and Engel's coefficients derived from the ENDEF for the nine metropolitan areas together with local product prices from the Consumer's Price System to estimate local and time-specific poverty and indigence lines for the 1980s. This was used as a departure point for generating income-based poverty indicators (proportion of poor, income gap ratio, gap as proportion of non-poor income, Gini coefficients, Sen and Foster-Greer-Thorbecke indexes) for each metropolitan area and the metropolitan stratum as a whole, which accounts for 30 per cent of the Brazilian population. Once the poor sub-population was defined, labour market, housing

Table 23.6 Selected income-based poverty measures and social indicators for the poor sub-population, 1981-90

	Recife		São Paulo		All metropolises	
	1981	1990	1981	1990	1981	1990
Poor ((% '000)	1,348	1,338	2,902	3,277	10,828	12,260
Proportion (%)	56	48	22	22	29	29
Gap ratio	0.48	0.46	0.38	0.40	0.42	0.42
Squared gap ratio	0.29	0.27	0.22	0.24	0.23	0.25
Children out of school (%)	21	14	19	11	21	15
Inadequate sewerage (%)	88	80	47	30	68	43
Informal employment (%)	41	45	33	30	36	39

Source: Rocha (1992a).

Note: The three social indicators are selected from a much larger set, limited only by the scope of the PNAD. The indicators here refer only to the poor sub-population, but they were also obtained for and non-poor sub-populations.

Definitions: Children out of School – poor children aged 7-14 not attending school, in relation to total number of poor children in this same age group; Inadequate Sewerage – number of poor living in dwellings with inadequate sewerage in relation to the total number of poor; Informal Employment – per cent of poor employees without a labour card, thus without labour legislation guarantees (paid holidays, insurance, retirement, and other benefits), in relation to the total number of poor employees.

conditions, and educational indicators were obtained for the poor, the non-poor, and the total population for all the years using the PNAD database (Table 23.6) (Rocha 1992a).

The set of comparable poverty indicators over several years showed how strongly the incidence of poverty is affected by short-term economic cycles. For all metropolises, the proportion of poor was highest in 1983 (38.2 per cent) and lowest in 1986 (22.8 per cent). Differences in the poverty rate are also notable between metropolises. In 1990, for instance, when the proportion of poor in Brazilian metropolises as a whole was 28.9 per cent, it varied from 47.4 per cent in Recife (located in the less-

developed Northeast region) to 12.2 per cent in Curitiba (in the South), reflecting the well-known regional disparities in Brazil. When considering a set of social indicators referring to the poor sub-population, São Paulo performed best among the metropolises, while two metropolises in the Northeast – Recife and Fortaleza – had the worst score (Rocha and Villela 1990). Also, an analysis of the incidence of poverty and the characteristics of the poor in the nucleus and in the periphery of each metropolis offers evidence of a three-stage life cycle of Brazilian metropolises: the three Northeastern metropolises (Fortaleza, Recife, and Salvador) are most backward in terms of economic, social, and, more generally, urban development. São Paulo, with a relatively low poverty rate, the best social indicators for the poor and the non-poor alike, and a periphery that tends to replicate the nucleus social and economic functions, is clearly the most advanced Brazilian metropolis (Rocha and Tolosa 1993).

According to Rocha's studies, the evolution of poverty in Brazilian metropolises in the 1980s presents three basic features. First, income-based indicators reveal remarkable stability, despite adverse economic conditions. Second, social indicators reveal an obvious improvement, for both the poor and the non-poor sub-populations, although in many instances, especially in sanitation, performance has remained critically low. Third, labour market indicators deteriorated for the poor and the non-poor alike.

Taking the metropolitan poverty lines as a point of departure, Rocha (1994) also estimated the incidence of poverty and its characteristics for the country as a whole and for twenty-two sub-areas. Because no consumer price data are available for rural and urban areas, cost relationships between the metropolises and the urban and rural areas in each region, derived from the ENDEF, were used. Results show declining income-based indicators, for both the poor and the hard-core poor, between 1981 and 1990 (Table 23.7 below).

This evidence of declining absolute poverty in the 1980s contradicts the general findings concerning the reduction in average household per capita income in the 1980s (Barros et al. 1993a,b), as well as income-based poverty indicators obtained by Psacharopoulos et al. (1992). There are three important methodological reasons that could explain the disparity in the results. First, if living costs for the poor decline comparatively to income, it is possible to have lower absolute poverty even when incomes are reduced. Second, Psacharopoulos used a single poverty line for the country as a whole, whereas Rocha used twenty-two

Table 23.7 Poverty rates, 1979-90

	Romão (1990)	Cepal (1991)	Psacharo- poulos (1992)	Rocha (1994)	World Bank (1995)
(a) Proportion of poor using expenditure-based poverty lines					
1979		0.45			
1980	0.24		0.34		
1981				0.34	0.20
1983	0.42			0.41	0.27
1985				0.35	0.22
1986	0.28			0.24	
1987	0.35	0.45		0.28	0.18
1988	0.39			0.29	
1989				0.30	0.17
1990			0.41	0.30	0.17
(b) Proportion of core-poor using expenditure-based indigence lines					
1979		0.22			
1980					
1981					0.14
1983					0.16
1985					0.13
1986					0.11
1987		0.23			0.10
1988					0.11
1989					0.12
1990			0.22		0.12

local and price-specific poverty lines. Third, because poverty increased between 1980 and 1981, part of the disparity can be explained by this difference in the baseline year.

Other studies used poverty lines derived from ENDEF expenditure data to estimate income-based poverty indicators for Brazil, but most of them did not generate a complete series of income indicators for the 1980s. The Economic Commission for Latin America and the Caribbean (ECLAC 1991), considering differentiated poverty lines for metropolitan, urban, and rural areas,⁸ found stability in absolute poverty levels between 1979 and 1987. Romão (1990a, b), using poverty lines derived from the 1979 World Bank food baskets, obtained results similar to Rocha's for 1983, but much higher proportions for subsequent years. Peliano (1993), using ECLAC's food baskets, found a rate of 22 per cent hard-core poor in 1990 (see Table 23.7(b)). This

last result has served as the basis for a grass-roots national mobilization aimed at fighting malnutrition and poverty, which evolved into a priority under the government of President Cardoso.

A recent report by the World Bank (1995) sums up a series of studies on poverty in Brazil, which were sponsored by the Bank from 1993 to 1995. It encompasses both a complete set of poverty indicators as well as considerations and data on public policies affecting the poor. Income-based poverty indicators and profiles for poor and non-poor were obtained from the PNAD using newly estimated poverty lines (Rocha 1993) derived from the 1987-8 family expenditure survey. Since this new survey investigates expenditures by metropolitan families only, urban and rural poverty lines were generated on the basis of cost relationships between metropolitan, rural, and urban poverty lines from the ENDEF. The studies in this project have the advantage of referring to a single methodological benchmark and, consequently, generating a large set of comparable information on poverty in Brazil in the 1980s and in 1990. Poverty rates for the country as a whole in the 1981-90 period are presented in Table 23.7. It is noteworthy that income-based indicators for 1981 and 1990 show a decline in absolute poverty, although this decline is smaller than the one obtained using higher poverty lines derived from the ENDEF (Rocha 1994).

Data sources for studies on poverty in Brazil

A quite complex statistical system has been developed in Brazil, which covers most relevant economic activity and population characteristics using surveys of varying detail and periodicity. The Instituto Brasileiro de Geografia e Estatística (IBGE) is the federal agency that as well as coordinating the statistical system is also in charge of most national surveys, specifically all those mentioned below.

When considering the incidence of poverty from the income point of view, it is essential to refer to income distribution. For poverty assessment purposes, the most adequate approach is to take the family as the income and consumption unit, and to estimate family per capita income to be compared with the established per capita poverty line. This means taking into account both the sum of all kinds of revenue (labour income, transfers, rent) received by all members in the family and family size.

In Brazil there are two basic data sources for income, where all individual incomes are surveyed in the family context: the Demographic Census and the national family survey (PNAD).

The Demographic Census is a universal household-based survey that has taken place regularly every ten years since 1940. It investigates an increasing but essentially comparable set of data, which allows for income estimation at a very detailed level: the statistical unit is a 150 household cluster, making possible an analytical breakdown well below the 5,000 county level. Since results from the 1991 census are not completely processed, the most recent income estimates derive from the 1990 PNAD.

The PNAD, originally a quarterly survey when it was created in the 1960s, has guaranteed a comparable set of annual data since the mid-1980s. Based on a household sample, its results are subject to restrictions: estimates are significant for urban and rural areas separately at state level (twenty-one states) and for the nine metropolitan areas and Brasília. Because PNAD investigates not only income but also characteristics of the family and individuals in relation to demographic, labour market, and dwellings aspects, a poverty profile can be easily derived from a given poverty line. Naturally, this depends on access to the PNAD database. Published data from PNAD present some income results expressed in minimum wage intervals, making it easier to derive proportions of poor based on minimum wage poverty lines directly from them.

Income data are also available from surveys where the main objective is to obtain data on family expenditure. These surveys constitute the essential sources when poverty lines are to be derived from observed consumption patterns. In Brazil, two national expenditure surveys are available, the national study of family expenditure (ENDEF) and the family budget survey (POF).

The ENDEF survey, conducted in 1974–5, is undoubtedly the most complete survey of this kind. It is especially detailed in terms of food expenditure and consumption, but it also investigated a large set of non-food expenditures by income bracket for eight regions, taking into account for each one the urban, rural, and metropolitan breakdown. The ENDEF was used as the basis for establishing the Consumer's Price System, created in 1979 in order to follow monthly consumer prices in metropolitan areas, Goiania, and Brasília. Despite the time-lag, it is still an essential source when deriving poverty lines for Brazil, because it encompasses the only national data on consumption patterns and prices

The POF, conducted in 1987–8, had as its main objective to in non-metropolitan areas.

update product weights in the Consumer's Price System. In contrast to the ENDEF, its scope was limited to the nine metropolitan areas, Goiania, and Brasília. It investigated expenditures and, even in the case of specific food items, prices and quantities have to be derived indirectly using exogenous prices. Because of high inflation rates and the consequent relative price volatility, converting prices to the October 1987 baseline has necessarily introduced some distortions. Consumption and income from POF are significantly above income from the PNAD relating to almost the same period (September 1987). Thus deriving poverty lines from the POF and using them with income data from the PNAD implies some overestimation of income-based poverty indicators.

Concluding remarks

There is enough empirical evidence to show that the incidence of poverty undoubtedly fell in the 1970s, whatever poverty lines are used. In the 1980s, in the face of stagnant per capita income, there was a marked break in this trend. Researchers using different poverty lines to take into account regional and local cost-of-living differences, demonstrated stability or a weak decline in poverty, while those using a single poverty line showed an increase. On the other hand, social indicators for the poor have presented a steady improvement in the postwar period, and even speeded up in the 1980s, despite the adverse economic results in general and the fiscal crisis in particular.

Methodological differences among studies have led to disagreement about the actual numbers of poor. However, this is not the main issue when poverty in Brazil is considered. As a matter of fact, absolute poverty is still widespread and the country is clearly short of resources – financial and others – to procure the basic minimum for all the poor, even considering the most conservative count. Thus, the main issue seems to be to reach agreement on the relative incidence of poverty when sub-areas in the country are considered. This is empirically related to the use of a set of poverty lines in order to take into account differences in the cost of living for the poor in different areas. Once relative values for the poverty lines are defined, there can be a politically agreed absolute number of poor for social policy purposes. To achieve this number from a set of reference poverty lines, it is sufficient to apply percentage variations of the same magnitude and direction to all local specific poverty lines.

There is consensus on the fact that differentiated poverty lines are a must. However, the lack of updated information on expenditure and prices in non-metropolitan areas is a serious hindrance to meeting this objective. Using a single poverty line for the country as a whole, that is, ignoring that the cost of living is generally lower in rural than in urban areas, leads to a relative overestimation of rural poverty and to underestimation of a crucial tendency: poverty in Brazil has become increasingly urban and metropolitan as a result of rapid urbanization. The visible and increasing number of the absolute poor in urban areas, where inequalities of income and wealth are striking, has prompted the general feeling that poverty has increased in the country as a whole.

In spite of rapid urbanization, rural poverty is still critical in Brazil, especially in the Northeast. Some argue that rural poverty is in fact larger than measured because a high percentage of the poor in so-called urban areas are dependent on agricultural activities for a way of living. In the Northeast, for instance, 29 per cent of poor urban household heads work in agriculture (World Bank 1995), making the distinction between rural and urban areas irrelevant. In fact, poverty is more widespread and acute in the Northeast: the poor represent 32 per cent of the total population and account for 55 per cent of the Brazilian poor (World Bank 1995). Fighting poverty in the Northeast means both facing the agrarian problem in particular, and dealing with the general issues of regional economic and social development.

Whereas poverty is widespread in the Northeast, it is highly concentrated in the metropolises of São Paulo (pop. 15.4 million) and Rio de Janeiro (pop. 9.8 million). In these South-eastern metropolises, poverty presents essential features associated both with urban size and density, and with inequality between the individuals. Fighting metropolitan poverty means guaranteeing an adequate urban infrastructure and providing jobs for the poor in an increasingly complex labour market. Recent developments have shown that a new cycle of economic growth may have a much smaller impact in terms of job creation than in the past. Thus, in the short run, the challenge consists in creating a "positive duality" or a way to keep the poor in the labour market, while measures aimed at fighting the roots of poverty – like providing good-quality schooling for all, which normally takes time to produce results – will reduce absolute poverty and inequality in the long run.

NOTES

1. Pfefferman and Webb used the Rio de Janeiro minimum wage of August 1974 (Cr376.8), which was the highest minimum wage in Brazil. It corresponded to US\$1,300 annually or a US\$260 per capita poverty line for a family of five.
2. "There is much direct evidence of the high levels of malnutrition, mortality rates and severely deficient services and living conditions that correspond to income levels in the vicinity of two minimum wages" (Pfefferman 1978).
3. The real value of the minimum wage fell from Cr69 to Cr62 in São Paulo and from Cr109 to Cr101 in Rio de Janeiro (Sabóia 1985: 34).
4. Fox would have preferred to use a poverty line based on the price of a minimum basket of commodities. Nevertheless, valuing in 1980 prices the cost of regional baskets estimated by Thomas for 1974, the ENDEF data resulted in values that were much too high to be used with the PNAD income data. This incompatibility can be explained by the greater income coverage of the expenditure survey.
5. In purchasing power parity terms, this poverty line is 20 per cent lower than the one established for Venezuela and roughly equal to the one established for Turkey. In the same year the United States poverty line was around \$3,000, or 18 per cent of US per capita GDP (Ravallion et al. 1990, as cited by Fox 1994).
6. It was assumed that the cost of the food basket in rural areas was 25 per cent below that estimated for urban areas. It was also assumed that food expenditure represented 25 per cent of total expenditure in rural areas, but 50 per cent in urban areas (Altimir 1979: 55 and 57).
7. In fact Fishlow (1972) conceived that a lower poverty line should apply to the Northeast.
8. Poverty lines in urban and rural areas are, respectively, 90 per cent and 75 per cent of the estimated value for metropolitan areas.

REFERENCES

- Adelman, Irma (1975) "Development economics – A reassessment of goals". *American Economic Review*, May.
- Albuquerque, Roberto C. (1994) "Estratégia de desenvolvimento e combate à pobreza". Paper presented at the Seminário Desenvolvimento Social e Pobreza. São Paulo: MRE.
- Altimir, O. (1979) *Dimensión de la pobreza en América Latina*. Santiago de Chile: Cuadernos de la Cepal.
- Barros, R. P., R. Mendonça, and S. Rocha (1993a) *Welfare, Inequality, Poverty, Social Indicators and Social Programs in Brazil in the 1980s*. Rio de Janeiro: IPEA.
- Barros, R. P., L. Fox, and R. Mendonça (1993b) "Female-headed households, poverty and the welfare of children in urban Brazil". The Population Council, Internal Discussion Paper, September.
- Bonelli, R. and L. Ramos (1993) *Distribuição de renda no Brasil: Avaliação das Tendências de longo prazo e mudanças na desigualdade*

- desde meados dos anos 70. Rio de Janeiro: IPEA, Discussion Paper No. 288, January.
- Camargo, J. M. and R. P. Barros (1991) "As causas da pobreza no Brasil: porca miséria!" *Perspectivas da Economia Brasileira - 1994*. Rio de Janeiro: IPEA, pp. 525-44.
- ECLAC (1991) *Magnitud de la pobreza en América Latina en los Años ochenta*. Santiago de Chile: Estudios e Informes de la Cepal.
- Fava, Vera L. (1984) *Urbanização, custo de vida e pobreza no Brasil*. São Paulo: IPE/USP.
- Fishlow, Albert (1972) "Brazilian size distribution of income". *American Economic Review (Paper and Proceedings)*, May: 391-408.
- Fox, Louise M. (1990) "Poverty alleviation in Brazil, 1970-1987". World Bank, July, mimeo.
- Fox, Louise M. and Samuel A. Morley (1990) "Who paid the bill? Adjustment and poverty in Brazil, 1980-1995". World Bank, June, mimeo.
- Hoffman, R. (1984) *Pobreza no Brasil*. Piracicaba: ESALQ, Série Pesquisas No. 43.
- Jatobà, J. (1994) *Rural Poverty in Brazil's Northeast: A Profile of the Rural Poor*. Recife: World Bank, 1993.
- Lam, David (1989) "Declining inequality in schooling in Brazil and its effect on inequality in earnings". October, mimeo.
- Pastore, J., H. Zylberstajn, and C. Pagotto. *Mudança Social e Pobreza no Brasil: 1970-1980*. São Paulo: Pioneira, 1983.
- Peliano, Anna M. T. M. (1993) *O mapa da fome: Subsídios à formulação de uma política de segurança alimentar*. Rio de Janeiro: IPEA, Documento de Política, No. 14.
- Pfefferman, G. and R. Webb (1983) "Pobreza e distribuição de renda no Brasil". *Revista Brasileira de Economia*, 37(2).
- Psacharopoulos, G. et al. (1992) *Poverty and Income Distribution in Latin America: The Story of the 1980s*. Washington, DC: World Bank, Latin America and the Caribbean Technical Department, Report No. 27.
- Ramos, L. and G. A. Reis (1993) "Quem ganha salário mínimo no Brasil?" *Perspectivas da Economia Brasileira - 1994*. Rio de Janeiro: IPEA, pp. 491-511.
- Rocha, S. (1988) "Estabelecimento e comparação de linhas de pobreza para o Brasil". Rio de Janeiro: INPES, Internal Discussion Paper No. 153.
- (1992a) "Poverty in Brazil: Basic parameters and empirical results". Paper presented at the International Seminar on Labour Market Roots of Poverty and Inequality in Brasil. Rio de Janeiro: IPEA, August.
- (1992b) *Poor and Non-Poor in the Brazilian Labor Market*. Rio de Janeiro: IPEA, Discussion Paper No. 278.
- (1993) *Poverty Lines for Brazil: New Estimates from Recent Empirical Evidence*. Report for the World Bank, January.
- (1994) "Governabilidade e Pobreza: o Desafio dos Números", Global Urban Research Initiative, Ford Foundation/University of Toronto. Rio de Janeiro.
- (1995) *Governabilidade e pobreza: O desafio dos numeros*. Rio de Janeiro: IPEA, Discussion Paper No. 368.

- Rocha, S. and H. Tolosa (1993) "Núcleo-periferia metropolitana: Diferenciais de renda e pobreza", in: J. P. do R. Velloso and R. C. Albuquerque (eds), *Pobreza e Mobilidade Social*. São Paulo: Nobel.
- Rocha, S. and R. Villela (1990) "Caracterização da subpopulação pobre metropolitana nos anos 80 - Resultados de uma análise multivariada". *Revista Brasileira de Economia*, 44(1): 35-52.
- Romão, M. C. (1990a) *Distribuição de renda, pobreza e desigualdades regionais no Brasil*. Recife: UFPE/PIMES, Discussion Paper.
- (1990b) *Pobreza: Conceito e mensuração*. Rio de Janeiro: IPEA/PNPE.
- Saboia, João (1985) *Salário mínimo: A experiência Brasileira*. São Paulo: L&PM.
- Thomas, Vinod (1982) *Differences in Income, Nutrition and Poverty within Brazil*. Washington, DC: World Bank, Staff Working Paper No. 505.
- Tolosa, H. C. (1991) "Pobreza no Brasil: uma avaliação dos anos oitenta", in: J. P. do R. Velloso (ed.), *A questão social no Brasil*. São Paulo: Nobel.
- Tolosa, H. and S. Rocha (1993) "Políticas de Combate à Pobreza: Experiências e Equívocos" in Velloso and Albuquerque (org), *Pobreza e Mobilidade Social*. São Paulo: Nobel.
- Vetter, D. and J. Hicks (1983) *Identifying the Urban Poor in Brazil*. Washington, DC: World Bank, Staff Working Paper No. 227.
- World Bank (1979) *Brazil: Human Resources Special Report*. Washington DC. Latin America and the Caribbean Regional Office.
- (1995) *Brazil: A Poverty Assessment*. Washington, DC: Latin America and the Caribbean Department, Report No. 14323-BR.